

BUILDING ENVELOPE IMPROVEMENT

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service—Practice Code 672



BUILDING ENVELOPE IMPROVEMENT

Building Envelope Improvement is applied as part of a conservation management system to reduce energy use. The practice involves modification or retrofit of the building envelope of an agricultural structure to regulate heat transfer. It applies to any non-residential structure that is used to support agricultural production and is climate controlled at least part of the time. Prior to practice implementation a Type II On-Farm Energy Audit that meets the ASABE/ANSI S612 requirements for on-farm energy audits and at a minimum addresses the major activities of ventilation, air heating and air cooling must be performed

PRACTICE INFORMATION

The properly implemented practice will meet all applicable building codes and follow the guidelines of applicable ANSI/ASABE standards and the American Society of Heating, Refrigeration and Air Conditioning Handbook - Fundamentals.

The practice establishes criteria for wall and ceiling insulation, insulated doors and windows, greenhouse glazing, hoop house covers and greenhouse energy screens.

When implementing this practice consider the potential damage caused by insects, birds, rodents or livestock and select insulation materials accordingly. Consider installing tinted windows and/or automatic temperature or moisture controls to enhance energy efficiency of building envelope. Note also that installation of this practice may require moving electrical wiring, fuel supply lines, water pipes and/or lighting fixtures.

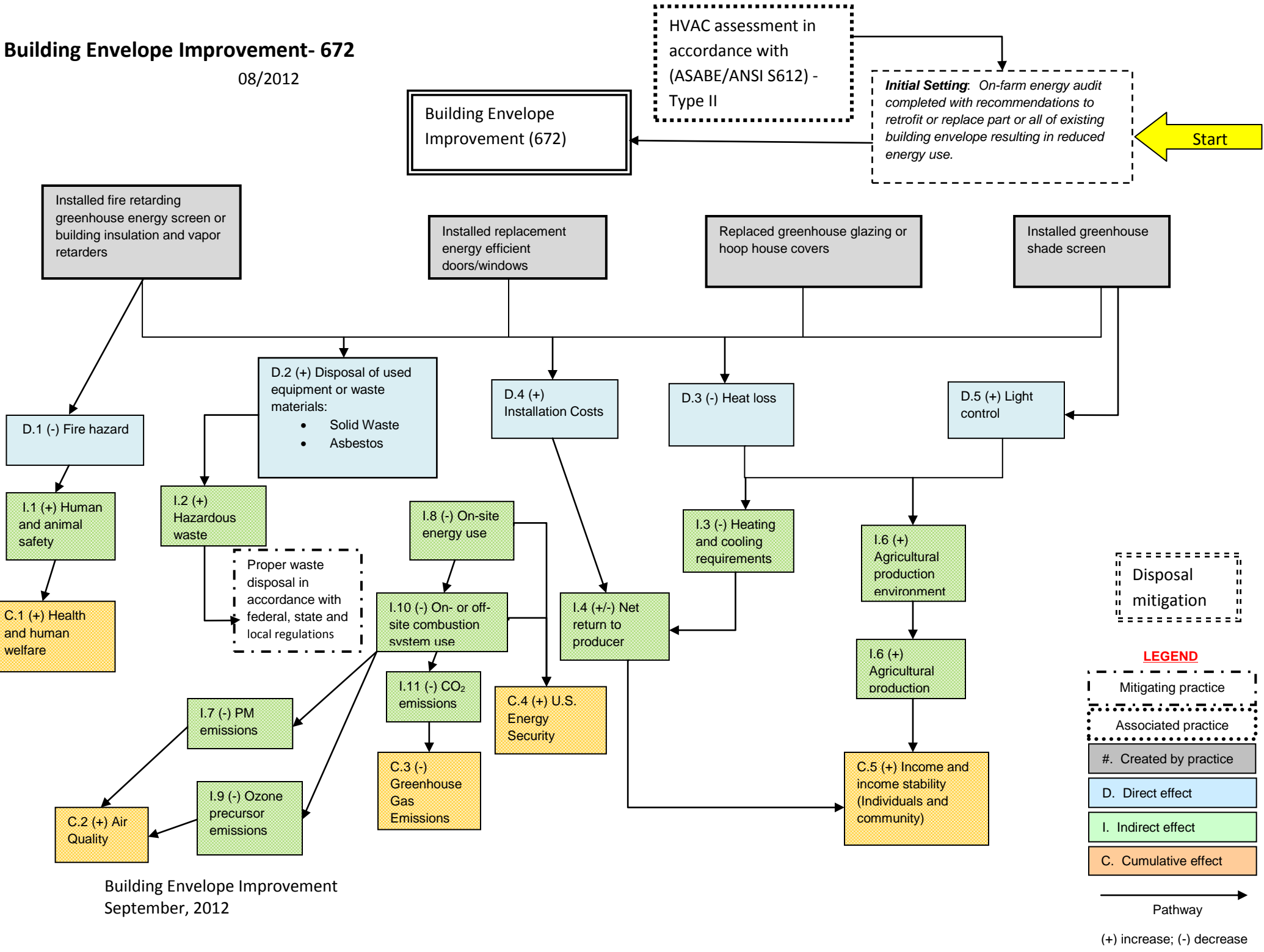
OPERATION AND MAINTENANCE

Operation and maintenance instructions for this practice involves regularly inspecting the building envelope and associated control devices for leaks, tears or other maintenance needs, and regularly inspecting and maintaining associated control devices as necessary. In addition, maintain records of utility bills, building envelope upgrades and maintenance performed on the building envelope for a minimum of 3 years after installation.

For further information, refer to the practice standard in the local Field Office Technical Guide and associated job sheets and specification.

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